An Overview of How to Measure Prudency in Natural Gas Financial Hedging Programs

November 9, 2011
Non-Docket No. 2011-32-G

Purpose

This presentation is provided in response to the Public Service Commission of South Carolina's request of the Office of Regulatory Staff to provide the Commission with a briefing on the specific issue of how to measure prudency in hedging programs.

- SC PSC Order No. 2011-580 (August 17, 2011) – *Docket No. 2011-4-G*

Section I: Background Information

Three Basic Requirements for a Natural Gas Financial Marketplace

1. Natural gas is a commodity making the product tangible and homogeneous and thus easy to sell around the entire US
2. A financial marketplace for commodities requires transparent and dynamic pricing information
3. Commodity markets generally are characterized by inherently volatile prices which encourages price-risk-sharing financial contracts

The Purpose of Hedging[1]

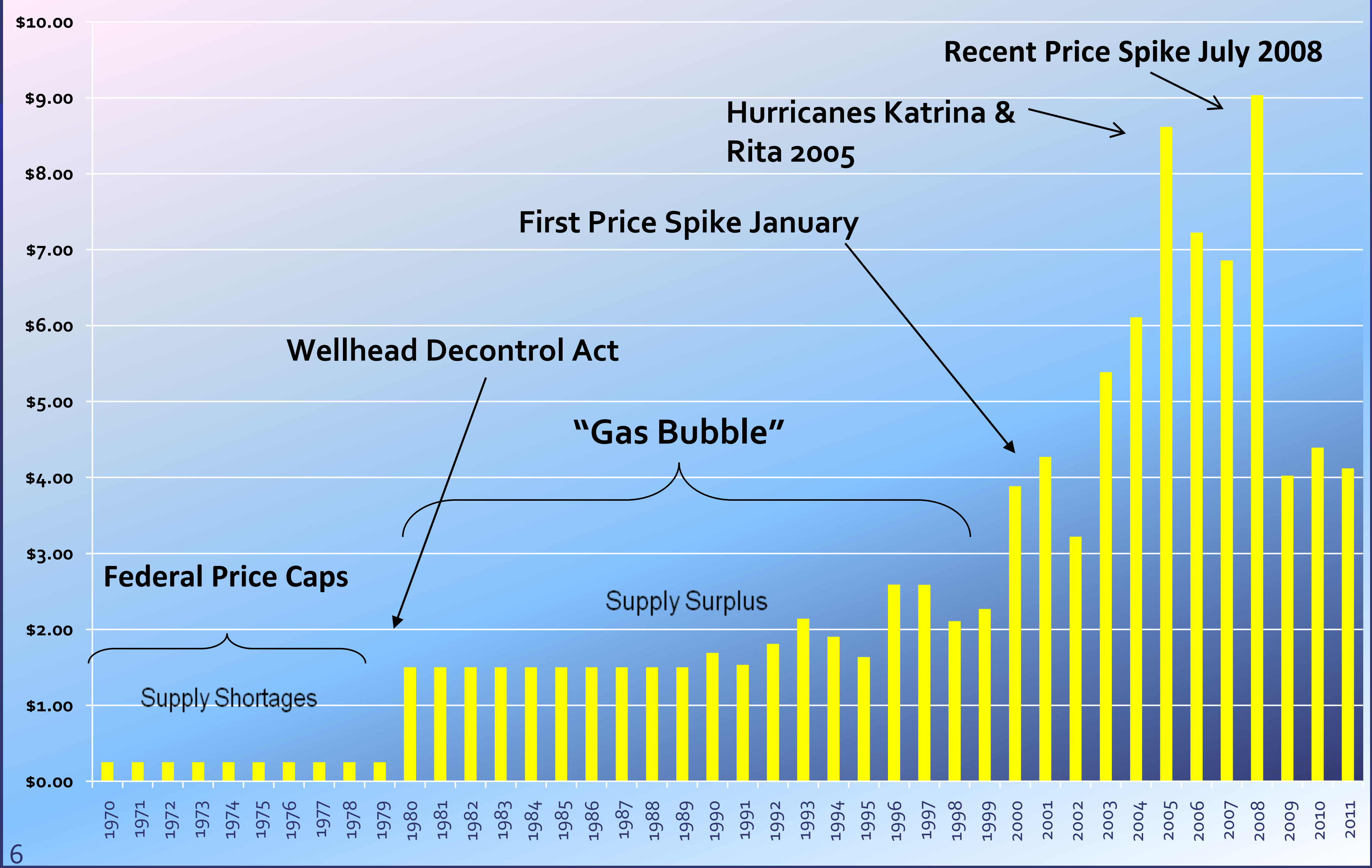
- From the consumers' perspective its primary function is to mitigate the impact of volatile prices.

- Hedging with financial contracts may result in the gas utility locking in a price that turns out to be higher than the prevailing market price.

- Hedging also should not be expected to reduce the average price of gas purchases over time.

1 Kenneth W. Costello and John Cita, *Use of Hedging by Local Gas Distribution Companies: Basic Considerations and Regulatory Issues, National Regulatory Research Institute 01-08, May 2001.*

Historical Average Annual Wellhead Price/Dt



Some Reasons for Gas Price Volatility

- Weather patterns
- Storage capabilities and storage levels
- Supply disruptions
- Global supply issues, such as LNG or oil disruptions
- Economic growth
- Development of more gas-fired electric generation
- Market Manipulation
- Speculation
- Development of new wells or new technology

When Did LDC's Begin Natural Gas Financial Hedging?

- Many LDC's began financial hedging programs in the mid 1990s.[2]
- A June 2000 NARUC survey indicated that over 90% of the states that responded had addressed or had a decision pending on the use of financial hedging to mitigate price volatility risks.[3]
- This NARUC survey confirmed that LDC's did not usually undertake natural gas financial hedging absent regulatory encouragement, approvals, and oversight.[4]

2 Linde, Robert, "Gas Price Prudence: From Hedge-and-Hope to Best Practice ," Public Utilities Fortnightly, Oct. 1, 2001.

3 -4 Summary of survey conducted by NARUC, published Aug. 22, 2001.

Section II:

Measuring the Prudency of a Natural Gas Hedging Program

Regulatory Definitions of Prudence

- Judging whether an action taken by a utility is prudent involves foresight, not hindsight. Decisions by utilities must be judged as to their reasonableness at the time they were made and not after the fact.

- The prudence test is not based on hindsight, but rather on whether the decisions at the time they were made were reasonable in the circumstances.

- "To prevent excess costs, we must insist on utility prudence. We have the legal tool: *just and reasonable* standard."[5]

Prudence is thus dependent on what a utility knows or should have known at the time a decision was made.

5. Hempling Scott, NRRI Executive Director ""Prudence: Who's Minding the Store" Essay

Two Step Analytical Measurement Process:

1. Was the program used by the utility for hedging Commission approved?

2. Were the individual financial contracts executed by the LDC in its hedging program secured at prevailing market prices or lower?

Step 1:

Is the program used by the utility for hedging Commission approved?

Guidance from the National Regulatory Research Institute:

"Regulators should review hedging plans and strategies

(a) prior to their execution and require the utility to

(b) keep them informed throughout the execution of any hedging plan."[6]

This is the approach taken in South Carolina.

6. Costello, Ken, " Natural Gas Hedging: Should Utilities and Regulators Change Their Approach," NRRI, May 2011, p. iii.

Step 1 (a)
Prior Approval of Hedging Plans Included:

- Methodology
- Financial Contracts
- Internal Utility Controls
- Time Horizon
- Percentage of Volumes
- Volumes Basis
- Costs Allowed thru PGA
- Regulatory Reporting Requirements

Step 1 (b)
The Utilities Filed Reports of the Results with the Commission and Staff on an Ongoing Basis

- After prior approval, the LDCs filed periodic reports with the Commission. The programs' results were continuously monitored, reviewed and evaluated.

- Hedging results were provided to the Commission in the Annual PGA and Purchasing Practice dockets by the LDCs and staff.

- Modifications, due to changing market conditions and cost considerations of the programs, were submitted to the Commission for approval.

STEP 2:

Were the individual financial contracts executed by the LDC in its hedging program secured at prevailing market prices or lower?

Guidance from the National Regulatory Research Institute:

Regulators should determine whether the utility executed the hedging strategy prudently.[7]

This is the approach taken in South Carolina.

7. Costello, Ken, " Natural Gas Hedging: Should Utilities and Regulators Change Their Approach," NRRI, May 2011, p. iii.

Step 2

Were the individual financial contracts executed by the LDC in its hedging program secured at prevailing market prices or lower?

- In each annual PGA review, ORS evaluates the price paid for individual contracts by comparing it to a daily NYMEX indices which shows the Hi and Low price range for each date.

- If the price paid falls within this range, then the purchase price paid for these contracts were deemed prudent purchases.

Therefore:

- If LDC is following approved hedging procedures, and
- If the individual hedging contract cost and terms match those prevalent in the marketplace at the time the contract is executed,
- ***Then that contract and its costs meet the criteria and are prudent.***

The Commission applies the reasonable foresight standard in measuring prudency in South Carolina:

Excerpts from prior Commission Order **:**

...our evaluation of prudency does not end with simply determining whether a particular decision results in additional costs to the price of gas....

...our review of prudency focuses on the material facts and circumstances surrounding the Company's decision at the time the Company made the decision being reviewed....

...we do not scrutinize the Company's decisions and actions based upon hindsight....[8]

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8. Docket No. 2003-6-G; Order No. 2003-641

Summary of How to Measure Prudency in Hedging Programs

- Prudency is measured by foresight, not hindsight.
- Prudency is measured by whether the execution of a financial hedging program is consistent with the approved program.
- Prudency of individual contracts is measured by whether or not they are purchased at prevailing market prices or lower.

Questions?